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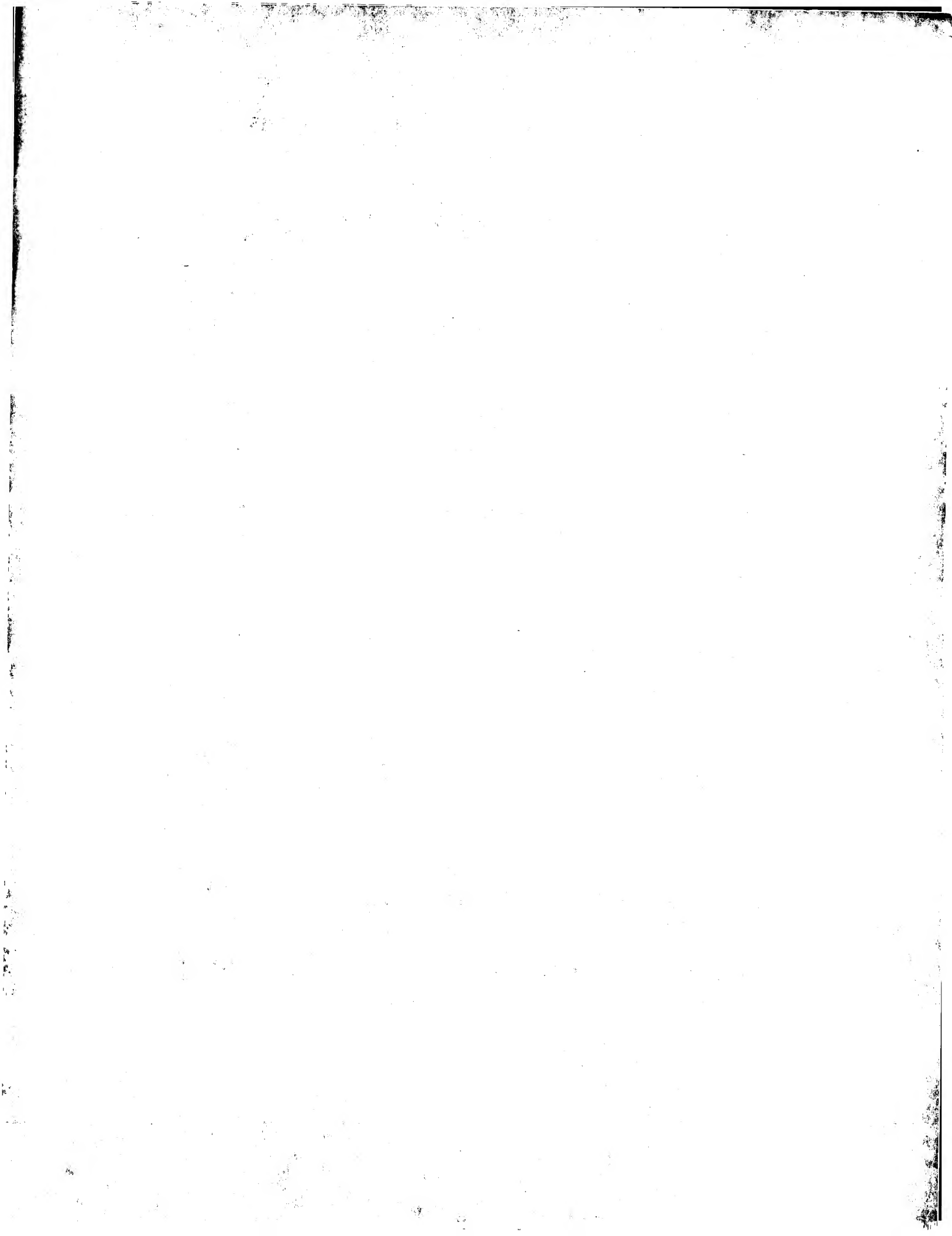
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PATENT SPECIFICATION

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COMPLETE SPECIFICATION

NO DRAWINGS

Improvements in the Treatment of Fabrics made from Cellulosic Textile Materials or from Mixtures thereof with Synthetic or Animal Fibres

I, MARIAN ADAMSKI, Stateless, of 60 Halkingcroft, Langley, Buckinghamshire, formerly of 33 Crosslees Park, Thornliebank, Glasgow, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to the treatment of fabrics made from cellulosic textile materials or from mixtures thereof with synthetic or animal fibres for the purpose of enhancing their crease and wear resistance.

It is known to impregnate, for example viscose rayon fabrics with urea formaldehyde resin precondensates and subsequently to dry and bake the fabric under acid conditions. In this manner a fabric having good crease resistance properties is produced but it is a disadvantage of fabric thus produced that the resistance to abrasion of the fabric is reduced by the treatment.

It is an object of the present invention substantially to overcome this disadvantage.

In accordance with the present invention the fabric is treated with a mixture of polyvinyl alcohol, sebacic acid, a drying oil and an aldehyde as a cross linking agent under acidic conditions, and the fabric is subsequently dried and baked.

As starting materials polyvinyl acetate and castor oil are used in order to produce polyvinyl alcohol and sebacic acid simultaneously and, in turn, to produce a polyester during baking under acid conditions, the unreacted portion of the castor oil serving as the drying oil.

A suitable mixture to produce the desired reaction consists of polyvinyl acetate 100 c.c.: castor oil 75 c.c.: and a 10% solution of caustic soda pellets in ethyl alcohol 100 c.c. The mixture is boiled under reflux for 30 minutes before being cooled. 50 c.c. of formaldehyde

serving as the cross linking agent diluted with 25 c.c. of a 10% solution of caustic soda in ethyl alcohol are then added to the above mixture together with 10 c.c. of concentrated phosphoric acid, the resulting pH value being approximately 4.5.

In carrying out the treatment the fabric is padded with the mixture thus produced and is then dried and baked and finally simultaneously scoured and oxidized under alkaline conditions. For example the fabric may be baked for 3 minutes at 150°C. and the fabric may be scoured for 10 minutes at 80°C. in an aqueous solution of soda ash (3 grammes per litre), sodium perborate (3 grammes per litre) and a detergent such as that marketed under the Trade Mark "Teepol" (3 grammes per litre).

After treatment in the solution a viscose rayon fabric resisted to 7580 revolutions before abrading. Crease resisted fabric not subjected to the treatment according to the invention will only resist to approximately 800 revolutions before abrading. The shrinkage after boiling for 30 minutes in equal proportions of the detergent marketed under the Trade Mark "Teepol" and soda ash was 0.5% for warp and 0.20% for weft showing that the treated fabric is highly resistant to abrasion and to shrinkage.

The dried fabric is found to be crease, shrink and abrasion resistant and possesses good tensile strength. In addition, the fabric withstands the action of certain light oxidising agents, acids and alkalis.

The handle of the fabric can be varied from soft to stiff depending on the type of polyvinyl alcohol used.

WHAT I CLAIM IS:—

1. A method of treating fabric made from cellulosic textile materials or from mixtures thereof with synthetic or animal fibres comprising the steps of treating the fabric with a

[Price 4s. 6d.]

- 5 mixture of polyvinyl alcohol, sebacic acid, a drying oil and an aldehyde as a cross linking agent under acidic conditions, and of subsequently drying and baking the fabric and finally simultaneously scouring and oxidizing under alkaline conditions.
- 10 2. A method as claimed in claim 1 in which polyvinyl acetate and castor oil are used in order to produce polyvinyl alcohol and sebacic acid simultaneously and, in turn, to produce a polyester by baking under acid conditions, the unreacted portion of the castor oil serving as the drying oil.
- 15 3. A method as claimed in claims 1 or 2 in which the mixture for treating the fabric consists of polyvinyl acetate 100 cc, castor oil 75 cc and a 10% solution of caustic soda pellets in 100 cc ethyl alcohol, said mixture being boiled under reflux for 30 minutes before being cooled and 50 c.c. of formaldehyde serving as a cross linking agent diluted with 25 c.c. of a 10% solution of caustic soda in ethyl alcohol being subsequently added to said mixture together with 10 c.c. of concentrated phosphoric acid the resulting pH value being approximately 4.5.
- 30 4. A method as claimed in claim 3 in which the fabric after being dried and baked is scoured in an aqueous solution of soda ash, sodium perborate and a detergent.
- 35 5. Fabric made from cellulosic textile materials or from mixtures thereof with synthetic or animal fibres treated in accordance with the method claimed in any of the preceding claims.
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